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ABSTRACT

Social validity data were collected for three educational interventions designed to increase the academic engaged time of elementary special education students: (1) a reading tutorial intervention, (2) a special education consultation intervention, and (3) a home-based consultation intervention. A total of 29 students, 14 parents, 21 teachers, and 5 principals completed questionnaires. All three programs were rated as good instructional interventions, overall. Aspects often noted as important included the relationships of those involved in the intervention, adequate provision of time for discussion, and the screening of participants. Principals had minimal involvement in the intervention programs. Estimates of academic improvement due to the intervention, and willingness to participate in a similar program were varied. Appended are the outline of interventions presented to teachers before implementation as well as the social validity questionnaires for students, parents, and teachers, for all three interventions. 11 references. (DB)

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RESEARCH REPORT NO. 21

SOCIAL VALIDITY OF THREE INTERVENTIONS TARGETING INCREASES IN ACADEMIC ENGAGED TIME

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James E. Ysseldyke, Paul Muyskens, and Jill Weiss

INSTRUCTIONAL ALTERNATIVES PROJECT

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Abstract

Social validity data were collected for three educational interventions designed to increase the academic engaged time of elementary students: a reading tutorial intervention, a special education consultation intervention, and a home-based consultation intervention. A total of 29 students, 14 parents, 21 teachers, and 5 principals completed questionnaires. All three programs were rated as good instructional interventions overall. Aspects often noted as important included the relationships of those involved in the intervention, adequate provision of time for discussion, and the screening of participants. Principals had minimal involvement in the intervention programs. Estimates of academic improvement due to the intervention, and willingness to participate in a similar program were varied. Potential reasons for these results are discussed.

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Social Validity Evaluations of Three Interventions Targeting Increases in Academic Engaged Time

The term "social validity" refers to the consumer's reaction to a change or intervention; it is the consumer's attitudes or affective outcomes (Wolf, 1978). While this variable often is ignored in laboratory-based educational research, it is a very important component of applied research, and essential to the generalization of research findings. Baer (1987) identified social validity as the process that controls whether interventions are allowed to begin. For interventions already started, Baer viewed social validity as the process allowing the survival of interventions and controlling the breadth of adoption achieved by those interventions that do survive. The divergence of interests between researchers and practitioners is a serious problem, often attributed to researchers striving for statistical rather than practical significance (Barlow & Hersen, 1984; Keith, 1988). Increasing the emphasis on social validity, particularly by employing a process of social validation when evaluating research, would help eliminate this researcher-practitioner gap (Kazdin, 1977).

Schwartz and Baer (1989) pointed out that soliciting feedback from the community during an intervention can lead to a closer relationship between participants and interveners. If the feedback is utilized, it can provide the audience with active, shared control of the intervention program. Schwartz and Baer noted an encouraging increase in the use of social validation as an aspect of research studies, particularly in the area of behavior analysis. They further noted the need for social validity assessments to expand the range of consumers assessed and the development of more homogeneous and objective techniques for assessing social validity.

Kazdin (1977) outlined three important facets that need to be assessed when determining the social validity of interventions. The first area is the focus of the intervention, specifically whether the target behaviors are important to those in the natural environment. Second, the acceptability of the procedures used in the

intervention needs to be determined, both for those implementing and for those receiving the intervention. Last, the importance of the behavior change needs to be determined by those in daily contact with the subject or by comparing the subject's performance change with that of peers. Wolf (1978) outlined the need to socially validate procedures at three similar levels: goals, procedures, and effects.

During the 1987-88 academic year, the Instructional Alternatives Project implemented three interventions with elementary students who were receiving special education services. The three interventions were a reading tutorial intervention (Weiss, Thurlow, Christenson, & Ysseldyke, 1988), a special education consultation intervention (Ysseldyke, Christenson, Shriner, & Gorney, 1989), and a home-based consultation intervention (Christenson, Thurlow, Cleary, & Ysseldyke, 1989). All interventions were assessed in terms of their effects on achievement and academic engaged time.

The reading intervention was designed to increase the academic engaged time of nine elementary students with reading difficulties through sessions with volunteer tutors. At least 36 20-minute tutoring sessions were held over an 11-week period, during which tutors used paired reading, supported by flashcards, and a variety of other methods. For a detailed description of this intervention and the results obtained, see Weiss et al. (1988).

The special education consultation intervention was an individualized training and collaborative problem-solving process involving seven special education teachers, each with one or two intervention students and one control student. Implementation was done in three stages from November to April: (1) curriculum-based measurement (CBM) only, (2) CBM plus paper feedback about the student's academic engaged time, and (3) instructional consultation. The main goal of the special education consultation intervention was to increase students' academic

engaged time through individual instructional strategies. A thorough description of this intervention can be found in Ysseldyke et al. (1989).

The home-based consultation intervention was conducted to determine the effectiveness of a structured homework intervention in increasing academic responding in nine mildly handicapped students. A focused effort also was made to document home and school factors that contributed to these students' noncompletion of assigned work. This 12-week study primarily involved consultants working individually with the parents of the students to design interventions aimed at increasing homework completion and reading time at home. Christenson et al. (1989) provide a thorough description of this intervention and its results.

For each of the three interventions, information was obtained from students, parents, and teachers to assess social validity. Subjective evaluations were used to assess different facets of the interventions that needed social validation. Results are presented in a descriptive format.

Method

Subjects

Subjects for this study were students involved in each intervention, the students' parents (with the exception of the special education consultation intervention), the teachers of the students, and the principals in the schools in which students were located. The numbers of possible subjects for each intervention are shown in Table 1. Also shown in this table are the actual numbers of respondents from whom data were obtained.

All students were in grades 2-6 and receiving special education services when the study was conducted. Teachers were either in special education resource rooms (n = 8) or general education classrooms (n = 13; one mainstream teacher participated in both the tutoring and home-based consultation interventions). Teachers

completed a social validity questionnaire for each student in an intervention. Thus, for the special education instructional consultation intervention, a teacher who had two subjects in the intervention completed a questionnaire for each student. The 12 appearing in Table 1 for the number of teachers in the special education consultation intervention reflects 12 teacher responses (possible and returned) for the 7 teachers in the study. All students and teachers were from six schools in a suburban school district. Principals from all of these schools were sent social validity questionnaires. However, since not all interventions were conducted in all schools, the number of possible principals varied with the intervention.

Students for the interventions were recommended by teachers based upon who they felt could benefit from the intervention. All teachers were volunteers, except for one in the special education consultation intervention; this teacher was selected by the district's special education director to ensure that each school building had at least one special education teacher in that intervention. The project coordinators met with the teachers before the interventions began, and maintained regular phone contact with them throughout the study. A brief summary outline of the interventions as presented before implementation is presented in Appendix A.

Instruments and Procedures

All social validity ratings were made at the end of the school year, after all interventions had been completed. For students, questions were read by data collectors working in the schools. Parents were asked the social validity questions by the same data collectors over the telephone; if the parents declined to respond, no further contacts were made. For both principals and teachers, questionnaires were used. One attempt was made to follow-up on nonresponses.

Social validity questionnaires for the reading intervention were completed by students, parents, and reading teachers. The student questionnaire asked for ratings to eight statements having to do with enjoying the tutoring and increased reading

Table 1

Potential and Actual Number of Responses to Questionnaires

Type of Respondent	Reading		Special Education Consultation		Home-Based Consultation	
	Possible	Responded	Possible	Responded	Possible	Responded
Student	9	8	12	12	9	9
Parent	9	8	x	x	9	6
Teacher	9	9	12	12	9	9
Principal	4	3	6	5	4	3

ability as a result of the tutoring (see Appendix B). Parents and teachers received similar questionnaires that required six ratings related to opinions about volunteer tutoring as an intervention in general, and five ratings on the benefits of the intervention for this student. Comments and suggestions related to the tutorial program also were requested (see Appendix B).

Questionnaires investigating the social validity of the special education consultation intervention were completed by the intervention students and their teachers. There were eight items on the student questionnaire. The statements addressed disruptions in the classroom due to the observations and students enjoying having visitors in class and doing the CBM activities (i.e., timings and graphs). Teachers filled out questionnaires for each intervention student. These forms asked for eight ratings on teacher perceptions of the usefulness of each of the three stages of the intervention, and whether they would participate in similar program. There were also three questions asking for comments and/or suggestions for improving the intervention (see Appendix C).

Students, parents, and the students' mainstream teachers each completed a social validity questionnaire for the home-based consultation intervention. The students' questionnaires had eight items asking for ratings of how their structuring of homework assignments, and attitude toward homework had changed since the beginning of the project (see Appendix D). They also were asked whether they would like to participate in a project like this again. Parents and teachers were given the same questionnaire. It asked for ratings on nine items that paralleled the student items: How has the students' attitude toward, and completion of, homework changed since the beginning of the project, and would you participate again? They also were asked about the helpfulness of the consultant and for comments and suggestions for improving the program.

Principals of the schools involved in the interventions also were mailed a brief social validity questionnaire (see Appendix E). They were asked for ratings of the amount of feedback they had received from those involved in the project, to what extent they had been involved in the project, and to what extent they thought the student had benefited from the project. They also were asked to provide their opinions about the most positive aspect of the program, suggestions for improvement or changes, and general comments. The principal questionnaires were identical for all three interventions.

Results

Reading Tutorial Intervention

Student responses to the social validity questionnaires are summarized in Table 2. In general, the responses indicated that students enjoyed the program and thought that it had improved their reading. Responses related to a desire for future participation and perceived desire of friends to participate were equivocal. Responses about reading a greater variety of books tended toward agreement.

Responses to the parent questionnaire are summarized in Table 3. Parent responses to volunteer tutoring as an intervention were more mixed. Generally parents indicated the students were reading new words better, understanding more, and having a positive attitude, but not necessarily reading more books or a greater variety of books. There was a trend toward indicating that reading occurred more frequently. Parents indicated in written comments that six of the eight children had told them that they liked the tutor or tutoring. Other things the parents reported hearing were that their children liked getting out of class, and that they are now reading a greater variety of books. One parent reported hearing very little about the program.

Table 2

Student Responses to Reading Intervention Social Validity Questionnaire[a]

Item	Rating			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Enjoyed working with tutor.	---	1 (12.5)	5 (62.5)	2 (25.0)
Tutoring has helped reading.	---	---	4 (50.0)	4 (50.0)
Like leaving class.	---	2 (25.0)	4 (50.0)	2 (25.0)
Friends want tutoring.	1 (12.5)	4 (50.0)	3 (37.5)	---
Want to have tutor again.	---	3 (37.5)	2 (25.0)	3 (37.5)
Improved understanding when reading.	---	---	6 (75.0)	2 (25.0)
Improved reading of new words.	---	2 (25.0)	4 (50.0)	2 (25.0)
Greater variety of books read.	---	3 (37.5)	4 (50.0)	1 (12.5)

[a]Entries are numbers and percentages of students giving a particular response (n=8).

Table 3

Parent Responses to Reading Intervention Social Validity Questionnaire[a]

Item	Rating			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Volunteer tutors have adequate skills.	---	---	7 (87.5)	1 (12.5)
Quantity of tutoring was sufficient.	---	2 (25.0)	4 (50.0)	2 (25.0)
Tutoring offsets missed class time.	---	2 (25.0)	4 (50.0)	2 (25.0)
Oral reading practice helps academics.	---	---	6 (75.0)	2 (25.0)
Volunteers provide dependable help.	---	---	7 (87.5)	1 (12.5)
Willingness to participate.	---	---	4 (50.0)	4 (50.0)
Improved understanding when reading.	---	1 (25.0)	5 (62.5)	2 (25.0)
Improved reading of new words.	---	---	3 (37.5)	5 (62.5)
Greater variety of books read.	---	5 (62.5)	---	3 (37.5)
Reading is more frequent.	---	3 (37.5)	4 (50.0)	1 (17.5)
Improved attitude toward reading.	---	1 (12.5)	5 (62.5)	2 (25.0)

[a]Entries are numbers and percentages of parents giving a particular response (n=8).

Five parents reported hearing nothing from their child about aspects of the program that could be improved. Those suggesting changes mentioned: (1) having the home involved to improve student confidence, and (2) making it easier for the student to leave class.

Table 4 is a summary of teacher questionnaire results. Volunteer tutoring was regarded positively as an intervention. Responses about the results of the tutoring program indicated that tutors were reliable and adequately skilled. The quantity and method of tutoring was seen as good enough to offset missed class time, and improve student attitudes, reading of new words, and academics in general. When asked what they considered the most positive aspects of the program, all five teachers who responded mentioned the positive relationship established between the student and the tutor and/or the benefits of one-to-one academic work. Seven of the nine teachers were willing to participate again in a similar intervention.

Only two teachers offered suggestions for improvement or change. One suggestion was to provide more information about the program before it begins. Another was that there should be more communication between the tutor and teacher during the intervention. It was noted that one student missed language instruction while out of the room for tutoring. Three additional comments were made. One teacher resented the frequency of the observations and the lack of feedback, and thought the school should be compensated for taking part in the project. The other two comments were positive, mentioning the program being considerate of teacher schedules, and that the tutor-student relationship was particularly valuable because of the present home situation of the student.

Special Education Consultation Intervention

A summary of the students' responses to the social validity questionnaire for the special education consultation intervention is provided in Table 5. Overall, responses indicated that students did not consider visitors in class disruptive and that

Table 4

Teacher Responses to Reading Intervention Social Validity Questionnaire[a]

Item	Rating			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Volunteer tutors have adequate skills[b]	---	---	5 (83.3)	1 (16.7)
Quantity of tutoring was sufficient.[b]	---	1 (14.3)	5 (71.4)	1 (14.3)
Tutoring offsets missed class time.	---	2 (22.2)	5 (55.6)	2 (22.2)
Oral reading practice helps academics.	---	---	8 (88.9)	1 (11.1)
Volunteers provide dependable help.[b]	---	1 (12.5)	6 (75.0)	1 (12.5)
Willingness to participate again.	---	2 (22.2)	5 (55.5)	2 (22.2)
Improved understanding of reading.[b]	---	2 (28.6)	5 (71.4)	---
Improved reading of new words.[b]	---	2 (25.0)	5 (62.5)	1 (12.5)
Greater variety of books read.[b]	2 (25.0)	3 (37.5)	2 (25.0)	1 (12.5)
Reading is more frequent.	1 (11.1)	4 (44.4)	4 (44.4)	---
Improved attitude toward reading.[b]	1 (12.5)	---	5 (62.5)	2 (25.0)

[a]Entries are numbers and percentages of teachers giving a particular response (n=9).

[b]Nonresponses occurred for these items, ranging from 1 to 3 nonresponses. Percentages are based on the number responding.

Table 5

Student Responses to Special Education Consultation Intervention Social Validity Questionnaire[a]

Item	Rating			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Observers hinder attention.	1 (8)	7 (58)	3 (25)	1 (8)
Schoolwork is altered during observations.	3 (25)	9 (75)	---	---
Student treated differently during observations.	2 (17)	9 (75)	1 (8)	---
Student enjoyed observations.	---	7 (58)	5 (42)	---
Computer was not disruptive.	---	1 (8)	10 (83)	1 (8)
Timings were enjoyed.	---	2 (17)	9 (75)	1 (8)
Graphing was enjoyed.	---	1 (8)	9 (75)	2 (17)
Want for future timings.	2 (17)	4 (33)	5 (42)	1 (8)

[a]Entries are numbers and percentages of students giving a particular response (n=12).

they liked the activities associated with curriculum-based measurement (e.g., timings, graphing). The items asking about continuing participation in these kinds of activities and enjoying classroom visitors received responses split almost equally between positive and negative.

Table 6 is a summary of teacher responses to the questionnaire. Results indicate support for curriculum-based measurement as an instructional aid or strategy. A collaborative model was also seen as the preferred mode of consultation. Equivocal responses were obtained when teachers were asked about the instructional relevance of computer print-outs of observed behavior, and when asked about participation in similar consultation programs.

All seven teachers responding to the question asking about positive aspects of the program mentioned the time spent meeting with the consultants and the mutual sharing of ideas and interventions. Teachers indicated that this served as an impetus to take time to think about that particular student and to try new interventions. Also mentioned as positive was the focus on time on task. One teacher indicated that observational summaries were a positive aspect of the intervention.

Many suggestions were given by the six teachers responding to the question asking about facets of the program that could be improved or changed. Time for consultation was a major concern, mentioned on five forms. Suggestions included building consultation time into teachers' schedules, involving the regular education teacher in the consultation time, increasing the length of time between consultations in order for intervention results to be seen more clearly, and providing a clearer explanation of the time requirements of the program before implementation. Other suggestions were to do timings on the subject material used in the special education classroom (not necessarily reading) and to allow the consultation model to evolve into either an "expert consultation" or "collaborative consultant" framework, rather than designing it.

Table 6

Teacher Responses to Special Education Consultation Intervention Social Validity Questionnaire[a]

Item[b]	Rating			
	Strongly Disagree	Disagree	Agree	Strongly Agree
CBM helps monitor progress.	---	---	9(90.0)	1(10.0)
CBM helps determine skill levels.	1(9.1)	---	10(90.9)	---
CBM helps make instructional decisions.	---	1(9.1)	9(81.8)	1(9.1)
Computer printouts help instructional planning.	---	5(50.0)	4(40.0)	1(10.0)
Consultants help develop interventions	---	6(66.7)	3(33.3)	---
Collaborative consultation is more effective than an expert model.	1(10.0)	---	5(50.0)	4(40.0)
CBM graphs motivate students.	---	---	7(63.6)	4(36.4)
Willingness to participate again.	3(33.3)	2(22.2)	2(22.2)	2(22.2)

[a]Entries are numbers and percentages of teachers giving a particular response (n=12).

[b]Nonresponses occurred for every item with a maximum of 3 nonresponses on 1 item.

Five questionnaires included additional teacher comments. In general, the comments reflected discomfort with the number of observations and length of the program. One teacher commented about being unaware that the program would last quite so long and involve so many people, observations, questionnaires. Other responses raised questions about the extent to which the data accurately reflected student progress; teachers expressed feeling a pressure to show big improvements in the data: "I felt I had to be much more effective and student had t› improve commensurate with all the extra help and he didn't improve significantly."

Home-Based Consultation Intervention

Student responses to the social validity questionnaire for the h‹ ›ework intervention are summarized in Table 7. Ratings indicated minimal change overall in attitude toward homework and school work since the beginning of the intervention. Although there was a trend toward homework being given more regularly, an increased willingness to do homework, better organized homework, and parents helping more, equivocal responses were given to questions about independent completion of homework, schoolwork being more enjoyable, and the students' willingness to participate in a similar project. Student responses did indicate that more assignments were done each day and that more of the homework was completed correctly since the beginning of the project.

Parent responses (see Table 8) were similar to the student responses. Ratings of their children's attitudes toward and organization of homework varied, as did their ratings of the usefulness of a homework consultant. Most parents did indicate that their children completed a greater amount of their homework and that the consultants helped in planning homework. They also indicated that they would participate in another homework project.

Table 7

Student Responses to Home-Based Consultation Social Validity Questionnaire[a]

Item	Rating			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Homework is given more regularly.	---	3(33.3)	5(55.6)	1(11.1)
Increased willingness to do homework.	2(22.2)	1(11.1)	5(55.6)	1(11.1)
Homework done without help.	1(11.1)	3(33.3)	3(33.3)	2(22.2)
Homework is better organized.	1(11.1)	2(22.2)	5(55.6)	1(11.1)
More of homework is correct.	1(11.1)	1(11.1)	4(44.4)	3(33.3)
Increased completion of homework.	1(11.1)	---	5(55.6)	3(33.3)
Parent(s) help more with organization.	2(22.2)	1(11.1)	2(22.2)	4(44.4)
Schoolwork is more enjoyable.	2(22.2)	2(22.2)	3(33.3)	2(22.2)
Willingness to participate again.	2(22.2)	3(33.3)	3(33.3)	1(11.1)

[a]Entries are numbers and percentages of students giving a particular response (n=9).

Table 8

Parent Responses to Home-Based Consultation Social Validity Questionnaire[a]

Item	Rating			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Homework is given more regularly.	1(16.7)	1(16.7)	3(50.0)	1(16.7)
Increased compliance in starting homework.	1(16.7)	2(33.3)	1(16.7)	2(33.3)
More independent study habits.	---	2(33.3)	3(50.0)	1(16.7)
Materials are better organized.	---	2(33.3)	3(50.0)	1(16.7)
Greater amount of homework completion.	---	1(16.7)	4(66.7)	1(16.7)
Homework is more accurate.	---	2(33.3)	3(50.0)	1(16.7)
Improved attitude toward homework.	1(16.7)	2(33.3)	2(33.3)	1(16.7)
Improved attitude toward school.	---	1(16.7)	4(66.7)	1(16.7)
Consultant helped plan homework.[b]	---	1(20.0)	2(40.0)	2(20.0)
Willingness to participate again.	---	1(16.7)	3(50.0)	2(33.3)

[a]Entries are numbers and percentages of students giving a particular response (n=6).
[b]There was 1 nonresponse for this item.

All five responding parents commented on the procedures suggested by the consultants (e.g., structured environment for homework or home-school monitoring of homework) or the relationship between the student and the consultant as the most positive aspect of the program. Other positives included improved student confidence, improved work completion, and improved communication with the teacher.

Four suggestions were made for improvement in the program. They were: better screening, more communication between the home and the school, decreasing the length of the program, and emphasizing helping children to have a better attitude about homework.

Several comments were offered by the home-based consultation intervention parents. One parent thought the child was ill-suited for the program. Another offered the suggestion: "How about a class in study habits?" Three of the five responses were positive and indicated their appreciation for the consultant.

The teachers' responses to the social validity questionnaire for the homework intervention showed increased compliance in starting homework (see Table 9). There was a general disagreement with the statement that student's materials are better organized, or that there has been an increase in independent study habits. There was a consistent trend toward seeing greater homework completion, more accurate homework, and improved attitudes. A positive trend also was evident when teachers were asked about the usefulness of a consultant. Most teachers indicated a willingness to participate in a similar intervention in the future.

Teachers viewed the increased involvement of the parents in homework completion and the increased communication between the home and the school as the most positive aspects of the program (4 of 6 responses). Getting the parents to appreciate the need for homework and the consultants' involvement with the parents and child also were seen as positive.

Table 9

Teacher Responses to Home-Based Consultation Social Validity Questionnaire[a]

Item	Rating			
	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Since beginning of project:				
a. Homework is given more regularly.[b]	---	3(37.5)	3(37.5)	2(25.0)
b. Increased compliance in starting homework.[b]	1(16.7)	---	5(83.3)	---
c. More independent study habits.[b]	1(12.5)	5(62.5)	2(25.0)	---
d. Materials are better organized.	1(11.1)	6(66.7)	2(22.2)	---
e. Greater amount of homework completion.	1(11.1)	2(22.2)	4(44.4)	2(22.2)
f. Homework is more accurate.	1(11.1)	2(22.2)	5(55.6)	1(11.1)
g. Improved attitude toward homework.	1(11.1)	2(22.2)	5(55.6)	1(11.1)
h. Improved attitude toward school.	1(11.1)	2(22.2)	6(66.7)	---
2. Consultant helped plan homework.	---	3(33.3)	5(55.6)	1(11.1)
3. Willingness to participate again.[b]	2(28.6)	---	4(57.1)	1(14.3)

[a]Entries are numbers and percentages of students giving a particular response (n=9).
[b]Nonresponses occurred for these items, ranging from 1 to 3 nonresponses.

Only two teachers offered suggestions for improving the program. These suggestions were to provide for more communication and support for the parents of students who need extra help and to do more individualized evaluation of and planning for student needs.

Additional comments were offered by only two teachers; they addressed specific student needs. One comment mentioned that the student is receiving homework because her parents requested no modification in the curriculum and this has made work increasingly difficult for the student. The other comment was that the student would not comply with the requirements of program.

Principal's Responses

A limited number of responses was obtained from the principals (see Table 10). Three principals responded to the reading intervention questionnaire. The ratings showed no involvement in the project, limited feedback from those involved and mixed feelings about benefit to the student. No responses were given to the item asking about positive aspects of the program. Only one response was given to the item asking for suggestions for improvement; this response suggested more communication between the project directors and the volunteers, and less reliance upon school personnel for organization. The only comment was one principal indicating a preference to not participate again.

The five principals' responses related to the special education consultation intervention showed limited involvement, some feedback, and generally positive feelings about the program's benefit to students. The most positive aspects of the program were reportedly the children's enjoyment of consultants' attention, the opportunity to implement the creative ideas, and suggestions received in order to help the student, and reports of improvement by parent(s). Suggestions for change included adding regular updates to principals about the program and the use of more

Table 10

Principals' Responses to Social Validity Questionnaires[a]

Item	Rating			
	Not at All	Sometimes	Frequently	Very Frequently
Extent of feedback you received:				
Reading	1 (33.3)	2 (66.7)	---	---
Special Education Consultation	1 (20.0)	4 (80.0)	---	---
Home-Based Consultation	2 (66.7)	1 (33.3)	---	---
Extent of your involvement:				
Reading	3 (100.0)	---	---	---
Special Education Consultation	2 (40.0)	3 (60.0)	---	---
Home-Based Consultation	2 (66.7)	1 (33.3)	---	---
Extent of benefit to student(s):[b]				
Reading	---	1 (50.0)	1 (50.0)	---
Special Education Consultation	---	1 (25.0)	3 (75.0)	---
Home-Based Consultation	---	---	2 (100.0)	---

[a]For the Reading and Home-Based Consultation interventions, n = 3; for the Special Education Consultation Intervention, n = 5.

[b]One no response occurred to this item for each intervention.

experienced consultants. A variety of comments were received, varying from "I would not participate in a similar project" to "From what I've learned the information has been helpful and useful."

Three principals responded to the home-based consultation social validity questionnaire. Their ratings indicated little involvement in or feedback from the program, but two of them thought the project frequently benefited the student. Principals mentioned home visits by consultants, extra help, and increased parental support of homework as the most positive aspects of the program. There were no suggestions for improvement and there was only one comment: "From what I've heard, it has in fact been helpful."

Discussion

Social validity research is an important yet difficult aspect of applied research. Conducting research in applied settings typically is fraught with its own difficulties, many of them logistical in nature. Even with volunteers as participants, as time passes the implementation of an intervention often becomes trying, with many of the complexities introduced by any change process occurring (see Hall & Hord, 1987; Rossman, Corbett, & Firestone, 1988). On top of all this, researchers add the evaluation process, which requires that participants do a little more. When these events occur over the span of a school year, and are completed in the spring when everything else is occurring in the schools, social validity data are difficult to get and may be less positive than normally expected. Considerable efforts were made to obtain responses from all participants, yet some individuals remained nonrespondents. In at least one case, the nonrespondent refused to respond because of the belief that the questions surely had already been answered as part of conversations with consultants. The findings must be viewed in light of these constraints.

Opinions about the social validity of the reading intervention were generally similar when student, parent and teacher responses were compared. The volunteer tutor program was viewed as a positive, useful, and enjoyable intervention as a whole, with noticeably positive academic results. An unexpected finding was that the relationship between the tutor and the tutee was viewed as the most positive aspect of the program. This relationship may be the reason for the students' more positive attitudes toward reading that was noted by the teachers and parents.

The special education consultation intervention was viewed as a worthwhile and effective intervention overall. Curriculum-based measurement procedures and collaborative consultation were viewed positively as ways to determine and monitor skill levels and for designing interventions. Meeting with consultants to share ideas, particularly ideas about interventions, was the most positive aspect of the program, but providing for the time to meet was the biggest problem encountered. There was a wide range of opinions about the intrusiveness of the observational systems employed. The students and most teachers did not view it as a problem, but some teachers resented and felt pressured by it. While the observational methods used in this study would not necessarily be required for every intervention implementation, a clear description of the time requirements and number of needed classroom observations is an important element of the pre-intervention explanations. The fact that this was done by the project coordinator indicates that beyond this, it may be necessary to repeat the description throughout the intervention, and then just expect that some complaints still will be made. Despite the overall positive nature of the ratings, the teachers did not positively rate their willingness to participate in a similar program, perhaps due to the time requirements involved.

Responses to the social validity questionnaires for the home-based consultation intervention varied considerably. Neither the students nor the parents noted an improvement in organization, but both seemed to recognize improved

homework completion. The teachers responses also were varied. The parents considered the most important aspects of the intervention to be the relationship between the student and consultant, and the consultants' ideas, while the teachers saw the involvement of the parents in the homework process and the parents' communication with the school as the most positive aspects of the program. Further investigation is needed to determine whether the level of involvement in the program, opinions already held about the source of school problems, or some other factors account for these differing views.

While enlisting the support of the principals in the schools where interventions were undertaken was very important, when surveyed at the end of the year, the principals indicated that they had very little involvement in or feedback about the interventions after they were in place. There was little consensus in the perceptions of social validity expressed by those principals who did respond. Clarifying what project information will be conveyed to the principal and who is responsible for this could be an important factor in enhancing the principal's view of the social validity of the intervention programs.

Social validity information across the three interventions is characterized by some definite similarities. All three programs were viewed overall as using good instructional interventions - they were seen to be "good ideas." On the other hand, these programs are not always rated as useful given the situation of the student, parent or teacher involved. The limited number of people involved in these programs makes assurance of full cooperation by those involved essential for consistent results. Another factor that consistently appeared to be important, and in these studies frequently was referred to as the most positive feature of the interventions, was the relationship between the person implementing the intervention and the given student, parent or teacher. The "human factor" arises again with the selection, preparation and matching of all parties involved being a

very important factor in social validity. This factor involving the forming of relationships was consistently important across the method of intervention and the target person for the intervention (tutoring - student, special education consultation - teacher, home-based consultation - parent).

Perhaps one of the most telling ratings of social validity is whether people are willing to participate in another similar project. Both parent questionnaires (reading and home-based consultation) indicated a willingness to do so. Teachers expressed a desire to participate again only in the tutoring program, the intervention least demanding of their time. Students' responses on these items were mixed for all of the programs, perhaps indicating a negative response to being singled out for services,

There are several methodological obstacles in social validity research. The questionnaire format used in this study relied on subjective evaluation, and thus was susceptible to the raters' biases. Individual items also may have been too global, or not as directly related to criteria as is optimal. It may have been beneficial in these interventions to combine social validity measures as part of an ongoing evaluation. Midpoint, or monthly questionnaires would have provided comparison data, and opportunity for making valuable program modifications. Despite these difficulties, determining the clinical and social significance of our interventions is an essential component in developing interventions that will be used for the benefit of students.

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Appendix A

Outline of Interventions: Presented to Teachers Before Implementation

Instructional Alternatives Project

Intervention Proposal

1987-1988

The goal of all interventions is to increase handicapped students' academic engaged time. Each intervention takes a different approach.

Reading

Goal: To provide additional reading practice for special education students

Persons Involved: Special education students in grades 1 - 6, who in their teacher's opinion, could show improvement if given more practice opportunities in reading.

Volunteer Tutors for 4 days per week, 30 minutes daily per student

Timeline: October - April

Curriculum - Based Measurement/Intervention Planning

Goal: To provide special education teachers frequent information on student's performance and an opportunity to assess effectiveness of different teaching strategies.

Persons involved: Mildly handicapped students in grades 1 - 6.

Special education teachers who receive training in CBM implementation and monitoring

Timeline: October - April

Homework Intervention

Goal: To assist parents/guardians in structuring completion of schoolwork

Persons involved: Special education students in grades 1 - 6, whose parents are interested participants and whose teachers believe completion of work and practice at home will assist (make an academic achievement difference for) the student

Timeline: 16 weeks -- approximately once per week -- parent meetings with research personnel

Appendix B

Social Validity Questionnaires for the Reading (Tutorial) Intervention

Reading - S: Student Questionnaire
Reading - P: Parent Questionnaire
Reading - T: Teacher Questionnaire

Student Name _____

Reading - S

We want to know what you liked about your tutoring in reading. Please circle the number on the right that best describes your thoughts for each sentence.

Note: SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree

	SD	D	A	SA
1. I enjoyed working with my tutor(s).	1	2	3	4
2. Working with my tutor(s) has helped me become a better reader.	1	2	3	4
3. I liked leaving the class to be tutored.	1	2	3	4
4. My friends think having a tutor would be fun.	1	2	3	4
5. I would like to have a tutor again.	1	2	3	4
6. Since my tutor started working with me:				
a. I understand what I read better than before.	1	2	3	4
b. I can read new words better than before.	1	2	3	4
c. I read more different kinds of books now.	1	2	3	4

17/JW.4

Student Name _____

Reading - P

We are interested in your perceptions of the reading tutorial program. Please circle the number on the right that best describes your agreement with each statement on the left.

Note: SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree

	SD	D	A	SA
1. Volunteer tutors have adequate skills to provide supplemental instruction.	1	2	3	4
2. Providing an additional 20-30 minutes of reading instruction daily for 12 weeks is sufficient to produce change.	1	2	3	4
3. Pulling the child out of class is more than offset by having the child get individual instruction.	1	2	3	4
4. Children profit academically from the opportunity to engage in additional oral reading practice.	1	2	3	4
5. Volunteers are a dependable source of supplemental classroom help.	1	2	3	4
6. I would have my child participate again in a reading tutorial program.	1	2	3	4
7. Since the tutor program began:				
a. The child understands more of what he or she reads.	1	2	3	4
b. The child reads new words better than before.	1	2	3	4
c. The child reads a greater variety of books now.	1	2	3	4
d. The child reads more often than before.	1	2	3	4
e. The child's attitude toward reading is more positive.	1	2	3	4

8. What kinds of positive things did your child tell you about the tutorial?

9. What kinds of things did your child tell you about the tutorial that might be improved or changed.

10. Any other comments?

17/JW.3.1

Student Name _____

Reading - T

We are interested in your perceptions of the reading tutorial program. Please circle the number on the right that best describes your agreement with each statement on the left.

Note: SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree

	SD	D	A	SA
1. Volunteer tutors have adequate skills to provide supplemental instruction.	1	2	3	4
2. Providing an additional 20-30 minutes of reading instruction daily for 12 weeks is sufficient to produce change.	1	2	3	4
3. It is a positive trade-off to pull a student out of class to provide individual instruction.	1	2	3	4
4. Students profit academically from the opportunity to engage in additional oral reading practice.	1	2	3	4
5. Volunteers are a dependable source of supplemental classroom help.	1	2	3	4
6. I would have my student participate again in a reading tutorial program.	1	2	3	4
7. Since the tutor program began:				
a. The student understands more of what he or she reads.	1	2	3	4
b. The student reads new words better than before.	1	2	3	4
c. The student reads a greater variety of books now.	1	2	3	4
d. The student reads more often than before.	1	2	3	4
e. The student's attitude toward reading is more positive.	1	2	3	4

8. What have been the most positive aspects of the tutorial program?

9. What facets of the program should be improved or changed?

10. Any other comments?

17/JW.3

Appendix C

Social Validity Questionnaires for the Special Education Consultation Intervention

Consultation - S: Student Questionnaire
Consultation - T: Teacher Questionnaire

Student Name _____

Consultation - S

We want to know what you liked about some changes in your special class. Please circle the number that best describes your thoughts.

Note: SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree

	SD	D	A	SA
1. It is hard to pay attention when visitors come into the classroom.	1	2	3	4
2. My teacher gives me different kinds of work when visitors come into the classroom.	1	2	3	4
3. My teacher treats me differently when visitors come into the classroom.	1	2	3	4
4. I like having visitors in the classroom.	1	2	3	4
5. The computer used by people in my room did not bother me.	1	2	3	4
6. I liked seeing how many words I could read in a minute or how many math problems I could finish in two minutes.	1	2	3	4
7. I liked to see my graph of my reading or math scores.	1	2	3	4
8. I would like to have timings again next year.	1	2	3	4

JW.7

Student Name _____

Consultation - T

We are interested in your perceptions of the instructional consultation project. Please circle the number on the right that best describes your agreement with each statement on the left.

Note: SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree

	SD	D	A	SA
1. Curriculum-based measurement is a useful and helpful way to monitor student progress.	1	2	3	4
2. Curriculm-based measurement is a useful way to determine student skill level.	1	2	3	4
3. Curriculm-based measurement is useful in making instructional decisions.	1	2	3	4
4. Computer printouts of observed student behaviors are useful for instructional planning.	1	2	3	4
5. Instructional consultations are effective in developing student interventions.	1	2	3	4
6. A collaborative consultation model is more effective than one in which the consultant is viewed as an expert.	1	2	3	4
7. Sharing curriculum-based measurement graphs with students is a useful and motivational teaching strategy.	1	2	3	4
8. I would participate in a similar consultation program again.	1	2	3	4

9. What have been the most positive aspects of the instructional consultation program?

10. What facets of the instructional consultation program should be improved or changed?

11. Any additional comments?

17/JW.8

Appendix D

Social Validity Questionnaires for the Home-Based Consultation Intervention

Homework - S: Student Questionnaire
Homework - P: Parent Questionnaire
Homework - T: Teacher Questionnaire

Student Name _____

Homework - S

We want to know what you liked about the homework program: Please circle the number on the right that best describes your thoughts for each sentence.

Note: SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree

1. Since the beginning of the homework project	SD	D	A	SA
a. I am given homework on a more regular basis.	1	2	3	4
b. I am more willing to do my homework.	1	2	3	4
c. I do more of my homework without help.	1	2	3	4
d. I keep my homework materials better organized.	1	2	3	4
e. I do more of my homework correctly.	1	2	3	4
f. I get more of my assignment done each day.	1	2	3	4
g. My parent(s) help me organize my homework more often.	1	2	3	4
h. I enjoy doing school work more	1	2	3	4
2. I would like to be in a homework project like this one again.	1	2	3	4

17/JW.6

Student Name _____

Homework - P

We are interested in your perceptions about the homework consultation program. Please circle the number on the right that best describes your agreement with statements on left.

Note: SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree

1. Since the beginning of the homework project:	SD	D	A	SA
a. The student is given homework on a more regular basis.	1	2	3	4
b. The student is more compliant in getting started on his or her homework.	1	2	3	4
c. The student has developed more independent study habits.	1	2	3	4
d. The student's materials are better organized.	1	2	3	4
e. The student completes a greater amount of his or her homework.	1	2	3	4
f. The student is more accurate in his or her homework.	1	2	3	4
g. The student's attitude is better toward homework.	1	2	3	4
h. The student's attitude is better toward school.	1	2	3	4
2. A consultant is helpful in planning homework.	1	2	3	4
3. I would participate again in a similar homework intervention project	1	2	3	4

4. What have been the most positive aspects of the homework consultation program?

5. What facets of the program should be improved or changed?

6. Any other comments?

17/JW.5

Student Name _____

Homework - T

We are interested in your perceptions of the homework consultation program. Please circle the number on the right that best describes your agreement with each statement on the left.

Note: SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree

1. Since the beginning of the homework project:	SD	D	A	SA
a. The student is given homework on a more regular basis.	1	2	3	4
b. The student is more compliant in getting started on his or her homework.	1	2	3	4
c. The student has developed more independent study habits.	1	2	3	4
d. The student's materials are better organized.	1	2	3	4
e. The student completes a greater amount of his or her homework.	1	2	3	4
f. The student is more accurate in his or her homework.	1	2	3	4
g. The student's attitude is better toward homework.	1	2	3	4
h. The student's attitude is better toward school.	1	2	3	4
2. A consultant is helpful in planning homework.	1	2	3	4
3. I would participate again in a similar homework intervention project.	1	2	3	4

4. What have been the most positive aspects of the homework consultation program?

5. What facets of the program should be improved or chang e?

6. Any other comments?

17/JW.5.1

Appendix E

Principal's Social Validity Quesitonnaires

READING INTERVENTION

	Not at All	Sometimes	Frequently	Very Frequently
1. To what extent have you received feedback from teachers, students or parents regarding the project?	1	2	3	4
2. To what extent have you been involved in the project?	1	2	3	4
3. To what extent do you feel the project has benefited the student(s)?	1	2	3	4

8. What have been the most positive aspects of the tutorial program?

9. What facets of the program should be improved or changed?

10. Any other comments?

17/SOC.4

INSTRUCTIONAL CONSULTATION

	Not at All	Sometimes	Frequently	Very Frequently
1. To what extent have you received feedback from teachers, students or parents regarding the project?	1	2	3	4
2. To what extent have you been involved in the project?	1	2	3	4
3. To what extent do you feel the project has benefited the student(s)?	1	2	3	4

8. What have been the most positive aspects of the consultation program?

9. What facets of the program should be improved or changed?

10. Any other comments?

17/SOC.3

HOMEWORK INTERVENTION

	Not at All	Sometimes	Frequently	Very Frequently
1. To what extent have you received feedback from teachers, students or parents regarding the project?	1	2	3	4
2. To what extent have you been involved in the project?	1	2	3	4
3. To what extent do you feel the project has benefited the student(s)?	1	2	3	4

8. What have been the most positive aspects of the intervention?

9. What facets of the intervention should be improved or changed?

10. Any other comments?

17/SOC.2

IAP PUBLICATIONS

Instructional Alternatives Project
350 Elliott Hall
University of Minnesota
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Minneapolis, MN 55455

Research Reports

No. 1 Time allocated to instruction of mentally retarded, learning disabled, emotionally disturbed, and nonhandicapped elementary students by J. E. Ysseldyke, M. L. Thurlow, S. L. Christenson, & J. Weiss (March, 1987).

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No. 12 Student and instructional outcomes under varying student-teacher ratios in special education by M. L. Thurlow, J. E. Ysseldyke, & J. W. Wotruba (August, 1988).

No. 13 Teacher stress and student achievement for mildly handicapped students by D. Bakewell, S. R. McConnell, J. E. Ysseldyke, & S. L. Christenson (August, 1988).

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